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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,716	12/18/2001	Ann Kerstin Birgitta Kjellqvist	ACO2844 US	2119
7590	09/03/2004		EXAMINER	
Joan M. McGillycuddy AKZO NOBEL INC. 7 Livingstone Avenue Dobbs Ferry, NY 10522			FLETCHER III, WILLIAM P	
			ART UNIT	PAPER NUMBER
			1762	
DATE MAILED: 09/03/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/022,716	KJELLQVIST ET AL.	
	Examiner	Art Unit	
	William P. Fletcher III	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 June 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 11/7/03 & 6/24/04.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/24/2004 has been entered.

Response to Arguments

2. Applicant's arguments in the above-mentioned submission, with respect to the rejection(s) of claim(s) 1-6 under 35 USC 103(a), have been fully considered and are persuasive. Applicant has amended independent claim 1 to recite that the press coating is applied as an aqueous colloidal dispersion to the substrate. Because Sheets teaches application and curing of the press coating to a paper overlay *before* the overlay is adhered to the substrate and pressed, Sheets no longer reads on this claim. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references cited below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The term "smooth" in claim 1 is a relative term which renders the claim indefinite. The term "smooth" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What is considered a smooth surface? By what criteria is it measured? It is, consequently, impossible to determine the metes and bounds of the claimed subject matter.

Claim 1 further recites that the substrate is not "substantially compressed." It is clear that this limitation permits some degree of compression but it is unclear where the line is drawn. How compressed is "substantially compressed?" Consequently it is impossible to determine the metes and bounds of the claimed subject matter.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. (US 6,120,717 A) in view of Chen et al. (US 6,165,308 A).**

Hsu teaches a process for the coating of a reconstituted wood substrate (RWS) comprising the steps of:

- a) applying a press coating as an aqueous colloidal dispersion to the substrate (abstract and 3:40-5:15); and
- b) applying heat and pressure to the coated substrate to cure the press coating (Example 6).

Because Hsu does not explicitly state or otherwise infer that the substrate is compressed during the process, it is the examiner's position that the substrate is "not substantially compressed," absent evidence to the contrary. Further, because Hsu does not explicitly state or otherwise infer specific measures to improve the smoothness of the coating, it is the examiner's position that the coating is "smooth," absent evidence to the contrary.

Hsu does not teach the further steps of:

- c) applying a top coat to the substrate after the curing of the press coating; and
- d) curing said top coat.

Chen teaches that it is conventional, in the manufacture of finished RWS, to apply a cured finish (top) coating 1:51-2:15). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of Hsu so as to further treat the press-coated RWS by conventionally applying a cured top coating. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully producing a finished RWS for further processing, sale, and/or use.

With respect to claim 2, Chen further teaches that it is conventional to apply and cure a primer coating before application of the finish coating (2:1-15). Consequently, it would have

been further obvious to one of ordinary skill in the art to modify the process of Hsu in view of Chen so as to apply and cure a primer coating before application of the finish coating. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully producing a primed, press-coated substrate, ready to receive a finish coating — as well as producing a finished RWS for further processing, sale, and/or use.

With respect to claim 3, Chen further teaches that all of applicant's claimed steps are conventionally carried out in a single production line (2:1-15). Consequently, it would have been further obvious to one of ordinary skill in the art to modify the process of Hsu and Chen so as to carry out all of the process step in a single production line. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of centralized production as well as the suggestion that doing so is conventional.

With respect to claim 6, Hsu teaches that the press coating comprises particles of a polymer of an ethylenically unsaturated monomer (4:14-15) and filler/pigment (5:5-10). Hsu does not explicitly state that the amount of filler is 40-60 wt.% based on the total weight of the emulsion solids. It is the examiner's position that the amount of filler in a coating composition is a result-effective variable effecting coating properties such as flowability and viscosity. Further, it is the examiner's position that the amount of pigment in a coating composition is a result-effective variable effecting the degree of pigmentation and hiding power thereof. Consequently, absent evidence of unexpected results demonstrating the criticality of the claimed amount of filler/pigment, it would have been obvious to one of ordinary skill in the art to further modify the process of Hsu in view of Chen so as to optimize such result-effective variables by routine experimentation (MPEP 2144.05).

8. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. (US 6,120,717 A) in view of Chen et al. (US 6,165,308 A), as applied to claim 1 above, and further in view of Cooley (US 4,587,141 A).**

The combined teaching of Hsu and Chen is detailed above. Neither of these references teach that the top coat is a radiation-curable top coat, cured by UV radiation.

Cooley teaches a RWS, previously press-coated, in which the press-coating receives a protective top coat of a UV-curable resin that is subsequently UV cured (5:33-46).

It would have been obvious to one of ordinary skill in the art to modify the method of Hsu in view of Chen so as to apply, as the top coat, a UV-curable protective resin, as suggested by Cooley. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of protecting the underlying substrate, as suggested by Cooley.

9. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. (US 6,120,717 A) in view of Chen et al. (US 6,165,308 A), as applied to claim 1 above, and further in view of Steele (US 4,200,673 A).**

The combined teaching of Hsu and Chen is detailed above. Neither of these references teach that the press-coated RWS is printed before application of a top coat.

Steele teaches that it is conventional to print a RWS in order to impart a desired pattern thereto (1:5-15).

It would have been obvious to one of ordinary skill in the art to modify the method of Hsu in view of Chen so as to print the RWS in order to impart a desired pattern, such as a wood grain. It would have been further obvious to one of ordinary skill to apply this printing beneath the top coating, thereby protecting the coating.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WPF 8/31/2004

William P. Fletcher III
Examiner
Art Unit 1762



BRET CHEN
PRIMARY EXAMINER